

Infrastructure Construction Plan Checklist and Guidelines

Public Works Department Transportation Services and Stormwater
One Exchange Plaza Suite 304, Raleigh, NC 27601 phone 919-516-2155 fax 919-516-2681

Transportation Services 919-516-2155

Please initial each listing as completed.

- ☐ All sheets 24" x 36
- ☐ Vicinity Map no smaller 1" = 500' with north arrow
- ☐ Cover sheet includes general notes, owner's name, telephone number, and mailing address
- ☐ Cover sheet includes subdivision, site plan, or group housing case number (e.g. S-1-05)
- ☐ Show all information required on the preliminary plan
- ☐ North arrow on all applicable sheets
- ☐ Public improvement quantities on front cover sheet
- ☐ Title blocks on all sheets
- ☐ Sealed by professional engineer, landscape architect, or surveyor as needed
- ☐ Show and locate all sidewalks and opposing driveways surrounding the site
- ☐ Right of way and pavement widths, street widths, sidewalk, curb and gutter, medians, median openings, curb radii labeled and dimensioned
- ☐ Existing property lines labeled "E.I.P"
- ☐ Centerline profile for existing streets shown for a minimum of 300 feet from the end of proposed streets, or as needed to establish adequate sight distance triangles
- ☐ Lot numbers, driveways, and parking lots shown on plan view
- ☐ Plan view shows all actual street names, if known. State road number shall be shown, if applicable
- ☐ Plan view indicates whether existing streets are asphalt, concrete, gravel or dirt
- ☐ Stations beginning 0+00 labeled every 100' feet on plan and profile view
- ☐ Match lines between sheets should be shown
- ☐ Complete street curve data shall be shown on plan and profile sheet to include VPC sta., VPI sta., VPT sta., VPC elev., VPI elev., VPT elev., L, K, A, PC sta., PT sta., L, R, Delta, Chord Distance, and Chord Bearing
- ☐ Driveway permit from NCDOT, if access is on a State maintained road
- ☐ Proper location of sidewalk (BOC to right of way < 12.5' sidewalk located 1.0' inside right of way, BOC to right of way > 12.5' sidewalk located 4.0' inside right of way)
- ☐ All handicap ramps shown and labeled and are in proper place as shown on Engineering Standard, STD #20.11
- ☐ Typical sections are shown with pavement designs, use STD #20.31 and 20.32 for all proposed residential, collector, and commercial streets
- ☐ Driveways and parking lots shall be shown on plan view
- ☐ Plan view show proposed and existing curb and gutter, storm sewers, drainage structures driveway pipes, water mains, sanitary sewer mains, etc.
- ☐ Street lighting design and layout including specifications
- ☐ Profile view shall show existing right and left right of way and centerline elevations as well as proposed centerline
- ☐ Plans shall bear the note: "All construction to be in accordance with all City of Raleigh standards and specifications and NCDOT, if applicable."
- ☐ Provide all construction details where applicable
- ☐ Provide any required traffic signage, lane striping or other traffic control devices
- ☐ Overview map for phased projects matches approved preliminary plan
- ☐ Any other information required by the Public Works Director to determine the safety and effectiveness of improvements made in the public right of way and easements
- ☐ Centerline profile shown for a minimum of 100 feet from the end of proposed streets
- ☐ 1/4 inch slope across entire sidewalk and planting strip area
- ☐ Stone under curb and gutter when depth of stone and asphalt is 10" or greater for all public streets
- ☐ Private streets are labeled and include private street inspection statement and any necessary access easements
- ☐ Slope easements shown, labeled, and dimensioned
- ☐ Cul-de-sacs are dimensioned. (Back of curb radius and r/w radius)
- ☐ Existing and proposed right of way dimensioned and labeled
- ☐ Sight triangles to be shown and labeled including any structures within them. Add note: "Within the sight triangles shown on this plan, no obstruction between two (2) feet and eight (8) feet in height above the curb line elevation or the nearest traveled way, if no curbing exists
- ☐ Existing and proposed parking areas, bay dimensions aisle dimensions
- ☐ Vehicular stacking space areas, length of queue, storage space required per stacked vehicle including aisle width, stall depth, stall width

- ___ Cross section and diagram of each floor of a parking structure
- ___ Internal traffic circulation details
- ___ Corner clearance has been verified and a note placed on the plans stating "Minimum corner clearance from curb line of intersecting streets shall be at least twenty (20) feet from the point of tangency"
- ___ "Private Street Inspection Statement" The construction inspection of private streets within cluster units, condominiums, group housing, townhouse developments and mobile home parks submitted for city approval is the responsibility of the owner/developer. Copies of certified inspection reports involving sub grade/aggregate base proof rolls, aggregate base and asphalt densities and thickness, and other pertinent information must be submitted to the City's Engineering Inspections Manager at P.O. Box 590, Raleigh, NC 27602 or faxed to (919) 831-6339. Contact Larry Anderson at (919) 831-6810 to obtain details of the above requirements. This note must be on all construction mylars containing private streets before mylar signatures are finalized
- ___ For re-submittals, all comments have been addressed or discussed with the reviewer.

Stormwater 919-516-2155

- ___ One copy of complete drainage calculations including one copy of the drainage area map and catch basin/gutter flow calculations
- ___ 100-year floodplain boundaries and elevations shown on all plans at profiles where applicable
- ___ Class and location of rip-rap and all creek location/relocation shown on plan view
- ___ Dimensions and locations of all permanent erosion control measures shown on all applicable plan view sheets
- ___ All existing and proposed private drainage easements shown on all applicable sheets
- ___ All single pipes equal to or larger than 48" diameter and all multiple pipes have headwalls shown and labeled on upstream end and a headwall or FES on the downstream end
- ___ Existing and proposed contours of intervals at five feet or less, referred to NAVD 1988
- ___ Label and show drainage swales, ditches, channels and water courses, and direction of flow
- ___ Impoundment or retention/detention structures for stormwater, if required
- ___ Show location of discharge points, velocity dissipation measures
- ___ Show location of existing and proposed storm sewer and inlet structures and culverts
- ___ Show floodway and floodway fringe areas. Flood hazard soil boundaries, flood storage area easements and regulatory flood protection elevations and indicate FEMA map/and/or flood study numbers
- ___ Provide summary of water quality/quantity calculations

- ___ A copy of the Wake County Soil Survey Map with the site located on it
- ___ Show all wetlands and Neuse buffer limits
- ___ Show backwater elevations for new stream crossings
- ___ Show stormwater network, including inlets, culverts, swales, ditches and channels (top elevation, invert elevation, pipes size and slope)
- ___ Stream crossings have been approved by the required agency

Public Utilities 919-857-4540

- ___ All elevations shall be shown of the profile view as it relates to water main, sanitary sewer mains, etc.
- ___ Existing utility lines shall be shown and labeled on plan view by dashed lines
- ___ Proposed utility lines shall be shown by solid lines
- ___ Plans show final proposed locations and dimensions of all water and sanitary sewer lines
- ___ Include stubs to each property line for water and sanitary sewer
- ___ Invert elevations for all manholes and profiles of sanitary sewer lines
- ___ Plan view shows all existing and proposed underground utility layout, including fiber optic, electric, gas and cablevision facilities located on the right of way
- ___ Existing water meter boxes and sewer cleanouts shown and labeled as "exist w. conn." and "exist s. conn.". Connection number should be given for existing water connections
- ___ Existing paved roads shall be bored, if possible.
- ___ Smooth steel encasement pipe shall be shown on the plan view and profile view including size and wall thickness
- ___ 4", 6", and 8" water lines shall be bored under driveways when possible
- ___ All existing and proposed sanitary sewer easements shown on all applicable sheets

Planning 919-516-2626

- ___ Plans show approved or proposed phase as shown on preliminary plan
- ___ Encroachment agreements submitted, if required
- ___ Lot layout and street locations as approved on preliminary plan
- ___ Preliminary plan approved. If preliminary plan may be approved administratively, construction drawings may be submitted prior to approval of preliminary plan, if concurrence by the Planning Department and member of Development Plans Review Group

Name - Engineer/Architect/Surveyor

Date